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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,293	01/04/2002	Shuji Machida	217043US0 XPCT	8819

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
LU, C CAIXIA	

ART UNIT	PAPER NUMBER
1713	10

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/019,293	MACHIDA ET AL.	
	Examiner	Art Unit	
	Caixia Lu	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) *1-5,7,9-14,16,19-21,23-33,44 and 45* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6,8,15,17,18,22 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4,6&7* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, Claims 6-8, 15-18 and 32-35 drawn to a graft copolymer, specie (i) a propylene polymer, (ii) a metallocene catalyst in Paper No. 9 is acknowledged. The traversal is on the ground(s) that applicants do not understand why there is no unity between Groups I and II, and adequate reasons of lack of unity of Group II and III are not provided. This is not found persuasive.

It is noted that claim 6 is dependent on claim 1 and claim 15 is dependent on claim 12, the dependency is for incorporating the limitations of the macromers to claims 6 and 15 respectively. Thus, applicants are requested to incorporate the limitation of claim 1 to claim 6 and claim 12 to claim 15 respectively because applicants have elected Group II drawn to a graft copolymer. The macromer of Group I containing a vinyl terminal group, the vinyl groups of the macromers undergo polymerization and no longer exist in the graft copolymer. Because Group I and II do not share a special technical feature, there is no unity between Group I and II. Applicants need to identify the special technical feature to traverse the restriction requirement. Detailed explanation regarding why an prior art anticipate the common technical feature of Groups II and III or renders the common technical feature of Groups II and III obvious are not required in the restriction requirement. However, the explanations are provided in detail in the rejections under 35 USC 102/103 as shown below.

The requirement is still deemed proper and is therefore made FINAL. Currently, claims 6, 8, 15, 17, 18, 22, and 34 read on the elected inventions.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8, 17, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 2 of claims 8 and 17 and line 5 of claim 22 respectively, the examiner suggests inserting --repeat units derived from-- immediately after "by weight of". The amendment is necessary because the limitation of "(a) " and "(b)" of instant claims are for the macromonomers before the macromonomers are inserted to the copolymer.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 6, 8, 15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Weng et al. (US 6,184,327).

The instant claims are directed to a graft copolymer obtained by copolymerizing a branched olefin macromer such as a propylene macromer and an α-olefin comonomer in the presence of a metallocene catalyst.

Weng teaches graft copolymers prepared by copolymerizing propylene macromers having Mn of 2,000 to 50,000, Mw/Mn of 1.5-5, and 85% of vinyl groups based on total olefin groups in the macromer and propylene in the presence of a metallocene catalyst such as dimethylsilyl(tetramethylcyclopentadienyl)-(cyclododecylamindo) titanium dichloride (col. 4, lines 55-65; and Examples 1-4, Table 2). Weng's working examples read on the instant claims.

7. Claims 18, 22 and 34 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Weng et al. (US 6,184,327).

Weng's teaching is relied upon as shown above. Weng teaches all of the limitation of the instant claims except that Weng does not expressly teach the intrinsic viscosity of the graft copolymer.

However, the Weng's graft polymers are made by processes using catalyst compositions which are identical the those of the instant claims and have a structure which is identical or substantially identical to those of the instant claims, especially the molecular weight and molecular weight distribution all are within the scope of the instant claims. The intrinsic viscosity of the graft copolymer is dependent on the polymer structure, molecular weight and molecular distribution and Weng's graft polymers have the same structure, molecular weight and molecular distribution as the graft copolymer of the instant claims. Under these circumstances, one of the ordinary skill in the art would have expected that the claimed intrinsic viscosity would be inherent in Weng's graft polymers.

Once a product appearing to be substantially identical is found and a 35 USC 102/103 rejection made, the burden of proof is shifted to the applicant to show an unobvious difference. In re Fitzgerald, 205 USPQ 594. In re Fessmann, 180 USPQ 324. Applicants have not met their burden to demonstrate an unobvious difference between the claimed product and the products of the prior art examples.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (703) 306-3434. The examiner can normally be reached on 9:00 a.m. to 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1193.

Caixia Lu
Primary Examiner
Art Unit 1713
November 7, 2003